

Tilapia

Name of species/group

Tilapia.

Primary potential

Aquaculture. Stock enhancement (but requires approval for wild release of exotics, for example in Papua New Guinea).

Attributes for aquaculture/stock enhancement

- ▶ Hardy, easy to breed and high survival.
- ▶ Fast growing, multiple harvests per year.
- ▶ Ease of production (feeding regime, management approach).
- ▶ Disease resistant.
- ▶ Able to be transported live.
- ▶ Improved strains are available.
- ▶ Moderate to high economic value.
- ▶ Potential for export.



Culture methods

Seed

- ▶ Hatchery production required to maintain stock quality.
- ▶ Simple low technology hatchery design.

Grow-out

- ▶ Amenable to multiple production systems, from small subsistence pond production to semi-intensive, commercial and high intensive systems (e.g. raceway, recirculation systems).

Current production status

- ▶ Fiji Islands has commercial and subsistence production which is rapidly expanding.
- ▶ Other Pacific Islands countries have attempted to introduce tilapia for aquaculture but with limited success to date. This is probably due to a lack of staff trained in tilapia culture practices and technologies and limited resource availability.

Marketing

- ▶ Domestic market potential in Fiji is high and expanding rapidly. There is potential for export markets. Trial shipments have been made to the USA and Australia.
- ▶ Tilapia is sold either whole or as fillets, live or frozen for the domestic market, frozen for the international market.

- ▶ There is limited opportunity for value-adding (perhaps smoking).

Comparative advantages/disadvantages (risks) of producing the species in the Pacific

Advantages

- ▶ Acceptable as a food fish in most locations. On large islands, it can be an important protein source in inland regions. Improved strains are available.
- ▶ Easy species to culture and very hardy.
- ▶ Production systems are relatively cheap.
- ▶ Short culture cycle and amenable to low input systems.
- ▶ Feed technology is advanced.
- ▶ Women are commonly involved in production systems.
- ▶ Primarily freshwater but there is potential for brackish water culture.
- ▶ Colour variants are available (e.g. red strains).
- ▶ Potential for integrated farming and polyculture.

Disadvantages

- ▶ Limited cold tolerance (culture requires temperature above 20°C).
- ▶ Poor stock management may produce stunting.
- ▶ Potential for hybridisation among stocks, which can reduce productivity. Likely escape into natural river systems, and impact on native fish and other species.